



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

701

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,971	03/31/2004	Joseph S. Beasley	BEASLEY.1150	5905
24038	7590	06/26/2006	EXAMINER	
MARTIN & ASSOCIATES, LLC			RADI, JOHN A	
P O BOX 548				
CARTHAGE, MO 64836-0548			ART UNIT	PAPER NUMBER
				3641

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,971	BEASLEY, JOSEPH S.	
	Examiner John A. Radi	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 April 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6,8,9,11-16 and 22-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 14-16 and 24 is/are allowed.

6) Claim(s) 1-6, 8, 9, 11-13, 22, 25 is/are rejected.

7) Claim(s) 23 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see arguments, filed 4/10/06, with respect to the rejection(s) of claim(s) 11, and 14 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mizek (US 6174252).

The indicated allowability of claims 7 and 10 (now incorporated into claims 1 and 9) is withdrawn in view of the newly discovered reference(s) to Folkins (US 3769911). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8, 9, 12, 13, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frick (US 1318858), and further in view of Folkins (US 3769911).

Frick teaches a projectile comprising: a substantially rigid body (3) with a cylindrical hole at the front (7); at least one deployable member (9) that is in a retracted position when fired; and a nose piece (17, 5 and 25) having at least a portion within the axial hole, wherein the nose piece includes at least one shear member (25), that is sheared off upon impacting with the target (page 2 lines 24-28), causing the nose piece to move inside thereby deploying the deployable member (fig 5).

Frick teaches the use of a shear pin (25) as opposed to a shear annular ring, which is broken upon impact. Folkins teaches a shear annular ring (8) which is used to

activate a contact fuse upon impact with the target. It would have been obvious to one having ordinary skill in the art at the time the invention was made to exchange an annular ring shear member for a shear pin since they are art recognized equivalents and the selection of any of these known equivalents to hold the nose piece from moving prior to application of sufficient impact pressure would be within the level of ordinary skill in the art.

With respect to claims 2-4, Frick teaches the invention as described above without specific materials for the body portion, nose piece, or deployable members. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the materials claimed (bronze for body, plastic for nose, or steel for deployable members), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

With respect to claim 5, the deployable members comprise a plurality of knife members with a sharp edge (Frick item 10 and page 1 line 90).

With respect to claim 6, wherein the nose (17) is friction fit with a cylindrical bore (7), see page 1 lines 80-81 wherein the plunger communicates with the aperture of reduced diameter. Examiner disagrees with applicant's assertion that a friction fit would not allow the invention to work. First of all, the plunger and aperture touch and therefore there is friction between them. Secondly, the plunger is moved by impact with the target (page 2 lines 24-28) and that impact in conjunction with the spring member (19) would overcome any friction between the plunger and aperture.

With respect to claim 8 the body comprises a portion of reduced diameter capable of supporting a sabot, the body portion around body member 16 is of reduced proportion with respect to base 20 and would be capable of supporting a sabot.

With respect to claim 9, a substantially rigid body portion (4), the body portion including an axial cylindrical hole (7) at a front of the body portion, the body portion further including first and second slots (8) on opposite sides of the body portion that extend from the axial cylindrical hole through the body portion; a first deployable knife (10) member that includes a first cutting edge that is in a retracted position (figure 1) inside the first slot when the projectile is fired; a second deployable knife (10) member that includes a second cutting edge that is in a retracted position (figure 1) inside the second slot (8) when the projectile is fired; and a nose piece (17) friction-fit into the axial cylindrical hole (7) at the front of the body portion, wherein the nose piece includes at least one shear member (25) that is sheared off when the nose piece contacts a target (page 2, lines 24-28 see above for full discussion), thereby causing the nose piece to move inside of the body portion (figure 2), thereby moving the first deployable knife member in a deployed position with the first cutting edge extending outside the first slot, and thereby moving the second deployable knife member in a deployed position with the second cutting edge extending outside the second slot (figure 2).

With respect to claim 12 wherein the knife member comprises a raised member that has a thickness greater than that of the slot keeping the knife in the slot even after being deployed, the pin (11) acts as the raised member upon which the knife member (10) rotates and is thicker than the slot (8) thereby keeping the knife inside the body (as

opposed to allowing it to fall out), until the knife member is deployed by the plunger (17). Fricke differs from the claimed invention in that the raised member is not integral with the deployable member, but is an attached pin. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the pin (11) of Fricke integral with the deployable member to create a "raised member with a thickness greater than that of the slot" keeping the member in the slot when deployed since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164.

With respect to claim 13, the body comprises a portion of reduced diameter capable of supporting a sabot, the body portion around body member 16 is of reduced proportion with respect to base 20 and would be capable of supporting a sabot.

With respect to claim 22, Fricke teaches a method for expanding the size of a projectile upon impact (page 2 lines 24-28) with a target by: firing the projectile at the target (page 1 line 76), the projectile comprising a rigid body (3) with an axial hole (7), a deployable member (9), a nose piece (17, 5, 25) having a portion within the axial hole of the body, wherein the nose piece includes an annular shear member (as described above with respect to claim 1); upon impact the force shearing of the annular ring to deploy the deployable members (page 2 lines 24-28).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frick (US 1318858), in view of Folkins (US 3769911) and further in view of Mizek.

With respect to claim 11, Frick in view of Folkins teaches the invention as described above with respect to claim 1 but doesn't teach a second raised member thicker than the slot the deployable member is kept in to keep it from being deployed until acted upon by the plunger. Mizek teaches a raised member (52) that acts on a detent of the deployed member (36) to keep the member from deploying until impacting the target, the motivation being to keep the deployable members from moving until after the projectile has been fired. The Mizek ball/detent assembly is opposite to that described by applicant in that the raised member is on projectile body corresponding to a detent on the raised member, as opposed to the opposite as claimed by applicant in claim 11. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ball/detent method taught by Mizek, reversed so the raised portion is on the deployed member because their operation is an art recognized equivalent to be within the level of ordinary skill in the art at the time of invention.

Allowable Subject Matter

Claims 14, 15, 16, and 24 are allowed.

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Radi whose telephone number is 571-272-5883. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John A Radi
Patent Examiner
Art Unit 3641


Michael J Carone
for Supervisory Patent Examiner
Art Unit 3641